

**What is Claimed is:**

1. A wireless projection system comprising at least:

at least one user end computer which includes at least:

5 an input module for entering data or commands;

a first storage module for storing data;

a coding module for coding data;

an user datagram protocol transmission module for dividing and packaging data in a plurality of packets based on an user datagram protocol;

10 a first buffer for temporarily storing data;

a first radio receiving/transmission module for transmitting or receiving radio signals; and

15 a first processing module for linking the input module, the first storage module, the coding module, the user datagram protocol transmission module, the first buffer, and the first radio receiving/transmission module for receiving and processing signals transferred from the input module, and retrieving data to be coded from the first storage module and transferring the data to be coded to the coding module to perform data coding, transferring the coded data to the user datagram protocol transmission module to package in packets, and transferring the packet data to the first buffer, and transferring the packet data individually to the first radio receiving/transmission module for emitting by radio signals; and

20 a wireless projector box including a projector module for projecting data to a location desired and a server end computer linking the projector module for transmitting signal to and receiving signals from the user end computer in a wireless linking fashion, the server end computer including at least:

25 a second radio receiving/transmission module for transmitting or receiving radio signals;

a second buffer for temporarily storing data;

30 an user datagram protocol receiving module for rearranging packet data based on the user datagram protocol;

- 10001252-0001-0000-0000-000000000000
- a decoding module for decoding data; and
- 5           a second processing module linking the second radio receiving/transmission module, the second buffer, the user datagram protocol receiving module, the decoding module, and the projector module for individually transferring packet data received by the second radio receiving/transmission module to the second buffer, and transferring the packet data from the second buffer to the user datagram protocol receiving module for repackaging in packets, and transferring the packet data to the decoding module for decoding, and transferring the decoded data to the projector module for projection.
- 10     2. The wireless projection system of claim 1, wherein the data or the commands entered from the input module include registration data required for setting the server end computer or setting data for altering internal setting values of the wireless projector box.
- 15     3. The wireless projection system of claim 2, wherein the internal setting values of the wireless projector box selectively include Internet Transmission Control Protocol address or transmission mode.
- 20     4. The wireless projection system of claim 3, wherein the transmission mode of the wireless projector box selectively includes an infrastructure mode or an ad hoc mode.
- 25     5. The wireless projection system of claim 1, wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an ad hoc mode for direct transmission.
6. The wireless projection system of claim 1, wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an infrastructure mode for indirect transmission through a wireless network access point.
- 30     7. The wireless projection system of claim 6, wherein the wireless network access point connects at least one external network for transmitting packet data to the external network.
8. The wireless projection system of claim 1, wherein the input module includes keyboards, mouse devices, floppy disk drives or optical disk drives, the first storage module and the second storage module include hard disk drives or non-

volatile memory; the first buffer and the second buffer include volatile memory, the first processing module and the second processing module include a central processing unit, and the projector module includes a liquid crystal display projector.

9. The wireless projection system of claim 1, wherein the coding module and the user datagram protocol transmission module are selectively obtained by direct entering from the input module to the user end computer or by means of radio transmission transmitting from the server end computer to the user end computer.

5  
10  
15  
10. The wireless projection system of claim 9, wherein the coding module and the user datagram protocol transmission module are obtained through radio transmission from the server end computer to the user end computer, the server end computer including the second storage module linking to the second processing module, and the user end computer including the transmission control protocol transmission module and the transmission control protocol receiving module linking to the first processing module, wherein

the second storage module is for storing data related the coding module and the user datagram protocol transmission module;

the transmission control protocol transmission module is for converting signals to transmission control protocol format signals for emitting; and

20  
the transmission control protocol receiving module is for receiving the transmission control protocol format signals and converting to original signals.

25  
11. A wireless projection method built in a wireless projection system which includes at least one wireless projector box and one user end computer, each user end computer including at least an input module, a first storage module, a coding module, an user datagram protocol transmission module, a first buffer, a first radio receiving/transmission module, and a first processing module; the wireless projector box including a server end computer and a projector module linking to the server end computer; the server end computer including at least a second radio receiving/transmission module, a second buffer, an user datagram protocol receiving module, a decoding module, and a second processing module; the user end computer transmitting signals to the server end computer in a wireless linking fashion, the method comprising the steps of:

30  
activating connection between the user end computer and the server end

computer;

transferring data to be coded in the user end computer from the first storage module to the coding module for data coding;

transferring the coded data from the coding module to the user datagram protocol transmission module to package in packets;

transferring packet data from the user datagram protocol transmission module to the first buffer for temporarily storing;

transferring the packet data individually from the first buffer to the first radio receiving/transmission module for emitting by radio signals;

utilizing the second radio receiving/transmission module to receive the radio signals emitted from the first radio receiving/transmission module;

transferring the packet data received in the second radio receiving/transmission module to the second buffer;

transferring the packet data from the second buffer to the user datagram protocol receiving module to repackage the packet data;

transferring the repackaged packet data to the decoding module for data decoding; and

transferring the decoded data to the projector module for data projection.

12. The method of claim 11, wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an ad hoc mode transmission for direct transmission.
13. The method of claim 11, wherein the radio signal transmission between the first radio receiving/transmission module and the second radio receiving/transmission module includes an infrastructure mode transmission for indirect transmission through a wireless network access point.
14. The method of claim 11, wherein the input module includes keyboards, mouse devices, floppy disk drives or optical disk drives, the first storage module and the second storage module include hard disk drives or non-volatile memory, the first buffer and the second buffer include volatile memory, the first processing module

- RECEIVED  
FEB 22 2011  
U.S. PATENT AND TRADEMARK OFFICE
- and the second processing module include a central processing unit, and the projector module includes a liquid crystal display projector.
15. The method of claim 11, wherein the coding module and the user datagram protocol transmission module are selectively obtained by direct entering from the input module to the user end computer or through a wireless transmission means from the server end computer transmitting to the user end computer.
- 5 16. The method of claim 11, wherein the coding module and the user datagram protocol transmission module are obtained through a wireless transmission means from the server end computer transmitting to the user end computer, the server end computer including the second storage module linking to the second processing module, and the user end computer including a transmission control protocol transmission module and a transmission control protocol receiving module linking to the first processing module, wherein
- 10 the second storage module is for storing data related the coding module and the user datagram protocol transmission module;
- 15 the transmission control protocol transmission module is for converting signals to transmission control protocol format signals for emitting; and
- the transmission control protocol receiving module is for receiving the transmission control protocol format signals and converting to original signals.
- 20 17. The method of claim 16, wherein the server end computer transmits data related to the coding module and the user datagram, protocol transmission module in a wireless transmission fashion to the user end computer, and includes the following steps:
- 25 entering loading request signals for the coding module and the user datagram protocol transmission module to the user end computer;
- transforming the loading request signals to transmission control protocol format signals;
- 30 transferring directly the transmission control protocol format signals in an ad hoc transmission mode from the first radio receiving/transmission module to the second radio receiving/transmission module;
- transferring the transmission control protocol format signals to the second processing module;

- 20000000000000000000000000000000
- retrieving from the second storage module data related to the coding module and the user datagram protocol transmission module by the second processing module based on the received transmission control protocol format signals;
  - transmitting directly the data related to the coding module and the user datagram, protocol transmission module in an ad hoc transmission mode and at transmission control protocol formats from the second radio receiving/transmission module to the first radio receiving/transmission module;
  - converting the transmission control protocol format signals received in the first radio receiving/transmission module to original signals; and
  - establishing the coding module and the user datagram protocol transmission module in the user end computer based on the converted original signals.
- 10